

LESSON 1A—NARRATIVE: WHAT IS ARCHAEOLOGY?

Archaeology is the study of the past through artifacts, ecofacts, and features.

If you have ever moved from one home to another, you know that you and your family left behind broken toys, outgrown clothing, and other belongings that you no longer found useful. Imagine that the next people who moved into your old house found the things you left behind. Those people could then learn something about you, and your daily life, by studying the objects you discarded. They could learn about your **technology**, or the tools you used. They could learn how you managed to stay alive, or **subsist**, by studying the foods you ate. And they could study your **shelter**, or home, and the protection it gave you.

Scientists today study technology, subsistence, and shelter of people from the past. This study of the tools, foods, and homes from former times is called **archaeology**. Archaeology is the process of discovering, interpreting, and preserving the past. The scientist who conducts these studies is called an **archaeologist**. Archaeologists create stories of the past through careful research. First, they find items at a specific place. Next they carefully describe those items and may take them to a laboratory. In the laboratory, the archaeologists study and analyze the items they have discovered. From this study and analysis, archaeologists can then determine a story of the past. The story will tell of the lives, movements, and survival of people, either **recent** or **ancient**, and describe their way of life. Ancient means very long



ago, from the far distant past. Recent refers to modern times.

Archaeologists search for **artifacts**. Artifacts are the objects that people have made or used. An artifact may be a stone tool of long ago, or broken glass from the more recent past.

In addition to artifacts, archaeologists search for and study **ecofacts** and **features**. Ecofacts are items from nature that provide clues to the past. Seeds or animal bones found in a fire pit are ecofacts. Features are non-movable things that indicate that humans have been present in a certain place. An example of a feature is soil that is discolored or stained by bacteria and mold, where a wooden post rotted in the ground. A feature may also be a place where people spent time, like a tipi ring or a fire pit. Artifacts, ecofacts, and features present definite clues that help an archaeologist re-create the past.

People left artifacts, ecofacts, and features behind at the **sites**, or locations, where they lived. Ancient

The excavations at Pictograph Cave, south of Billings, in the late 1930s and early 1940s, were the beginning of scientific archaeology in Montana. *Spencer Lauson, photographer. Courtesy Montana Historical Society Photograph Archives.*

Montanans did not have homes like ours. Their homes may have been caves, rock overhangs, or structures made of timbers and animal skins. Their homes could be either temporary or permanent, depending on whether food was available. Ancient people did not shop at grocery stores. Instead they were **nomadic** and roamed the land, gathering plants and hunting animals. Many of these ancient hunters and gatherers moved with the changing seasons. The items they left behind were eventually buried by soil and dust. The discoveries made at ancient sites provide clues as archaeologists attempt to understand the past.

A Montana archaeologist might study and research an ancient campfire pit for clues to the past. The site may contain ecofacts like animal bones and pieces of stone tools. These are ordinary items from the lives of ordinary people. Thrown away or dropped when they were no longer useful, and sometimes lost, they are the garbage of the past. Ancient garbage is called a **midden**. Middens provide many objects for archaeologists to study.

An archaeologist thoroughly researches the information presented by artifacts, ecofacts, and features. Then the scientist creates an idea, or **theory**, that explains the daily life of early Montanans. Interpreting an object's use and function may be difficult. Because of this, not all archaeologists reach the same conclusions about what an artifact was used for or what

an ecofact or feature means. As a result, different archaeologists come up with different theories about the nature of past life. Future discoveries and advancements in research methods may challenge our current theories.

Montanans of long ago were the ancient **ancestors** of today's American Indians. The most ancient of Indian groups on North America are named **Paleoindian** people. Paleoindians lived more than 8,000 years ago. They lived in Montana during the end of the last Ice Age. Paleoindian artifacts indicate that these people hunted some animals that no longer exist. After the Paleoindians, the next group of ancient people are called **Archaic** people. They lived in Montana between 8,000 to 2,000 years ago. Archaic artifacts indicate that these people made use of more plants and animals than Paleoindians did. The most recent ancestors of today's Indians are the **Late Prehistoric** and **Protohistoric** peoples. These groups lived much like Archaic people, except that they depended more on the bison to survive. The most recent ancestors of today's Indians introduced the bow and arrow as a weapon, and they later used horses for transportation and travel.

Archaeology is often very puzzling and mysterious. And the intrigue of the past attracts people to the study of archaeology. Finding missing pieces of the past's puzzle—and solving the mysteries of ancient life—makes being an archaeologist rewarding.

LESSON 1A—VOCABULARY: WHAT IS ARCHAEOLOGY?

ancestor _____

ancient _____

archaeologist _____

archaeology _____

Archaic _____

artifact _____

ecofact _____

feature _____

Late Prehistoric _____

midden _____

nomadic _____

Paleoindian _____

Protohistoric _____

recent _____

shelter _____

site _____

LESSON 1A—VOCABULARY: WHAT IS ARCHAEOLOGY? (CONTINUED)

subsist _____

technology _____

theory _____

LESSON 1A—ARCH ACTIVITY: THE MYSTERY OF THE MISSING PAGES

Grades: 3–8

Time: 30–45 minutes

Content Area: science, writing, and reading

Who: whole class and small group

Materials:

mystery book—30 to 40 pages

worksheet—12 copies

pencils and coloring tools

Arch Journal

OBJECTIVE AND OUTCOME

- Students will gain an understanding of how an archaeologist uses clues to determine the past.
- Students will reconstruct a book by creating the missing pages. Then they will compare their work to that of an archaeologist.

ACTIVITY

1. Select a disposable story book (30–40 pages). Tear apart into individual pages. Divide book into 6 equal groups and remove 1 or 2 pages of text from each group.

2. Divide class into 6 equal groups. Instruct each group to choose a writer, an illustrator, a reader, and a materials manager. The materials manager hands out book pages in sequence, and 1 or 2 worksheets to each group. Each person needs at least 1 page.

3. Inform students the book is incomplete. Instruct groups to order the pages chronologically. Each student then reads his or her page(s) aloud in the group. The group's task is to study the available information and create the missing story on the worksheet (writer and illustrator). Allow 10–15 minutes.

4. Return to whole class. Each reader shares his or her group's part of the story in order, including their re-creation of the missing pages.

5. Discuss: How did each group determine the missing pages? What

factors entered into the re-creation?

What changes would a group make upon hearing the remainder of the book from other groups? How is their assignment similar to an archaeologist's work? Why are they both mysteries?

6. Show students the missing pages and read the missing text.

7. Share ideas with the class and discuss.

EXTENSIONS

3–5:

- Research vocabulary.

See: Lesson 1A—Vocabulary

6–8:

- Challenge students to read about archaeological sites and to locate them on a map. See: Montana Archaeology Education Resource Catalog: Student Reading List

Lesson 1A—Arch Activity:

Student Worksheet for "The Mystery of the Missing Pages"

(2 per 6 groups)

Each group member reads his or her portion of the story aloud. Discuss the missing pages. Determine the group's plan for the missing pages. Write and illustrate the missing pages. Prepare to share your ideas with the class.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Missing Page # _____